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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,609	12/26/2000	Gerald R. Stanley	CRI0033.1	4249

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EXAMINER

CUNNINGHAM, TERRY D

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 03/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/748,609

Applicant(s)

STANLEY, GERALD R.

Examiner

Terry D. Cunningham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 30 January 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

The amendment filed 01/30/02 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is the equations set forth on Page 2 for the circuits of Figs. 2a-c. There is no evidence provided in the response that this operation is inherent nor did the original specification provide sufficient disclosure to enable the operation set forth by these equations.

Applicant is required to cancel the new matter in the reply to this Office Action.

Drawings

The proposed drawing changes filed 01/30/02 have been approved. Formal drawings are required in response to this action. Note, Applicant may no longer request that any objection to the drawing(s) be held in abeyance. See 37 C.F.R. § 1.85(a).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 4, it is not understood what is meant by a "multiple feedback filter". Further, there no embodiments seen to have this feature.

With respect to claim 4, Applicant remarks "Multiple feedback filters are well known in the art and are filters which provide feedback from the active device output to multiple points of the forward signal flow branch". However, Applicant has not provided any documentation to evidence this statement. Mere accusation by Applicant of notoriety of claim terminology cannot be seen to overcome the rejection. Further, although the circuit of Fig. 4a discloses a circuit labelled "Multiple-Feedback LP Filter", it is not seen that the specification provides an express definition to the meaning of the phrase "multiple feedback filter". Thus, this rejection is maintained.

In claim 5, it is not understood what is meant by a "state variable filter".

With respect to claim 5, Applicant remarks "State Variable filters are well known in the art as having multiple active devices coupled together to create multiple poles or notches". However, again it is seen that Applicant has not provided any documentation to evidence this statement. Mere accusation by Applicant of notoriety of claim terminology cannot be seen to overcome the rejection. Further, it is not seen that the specification provides an express definition to the meaning of the phrase "state variable filter". Thus, this rejection is maintained.

In claim 6, it is not understood how the "feedback control loop" can operate as such without a connection to the "error amplifier and modulator circuit". Further, the claim language makes it appear that the "feedback control loop" is connected via two separate paths to the "pulse width modulation circuit", which is misdescriptive. To overcome the above rejections to claim 6, it is suggested that "pulse width modulation circuit" in line 7 be changed to "error amplifier and modulator circuit".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4 and 5 are rejected under 35 U.S.C. §102(b) as being anticipated by Chew (USPN 5,107,491). Chew discloses, in Fig. 1, a circuit having “a low pass filter (14)”; a “band-reject (i.e., notch) filter (14)”; and a “a pulse width modulation circuit (not shown, but providing a signal to 16), all connected and operating similarly as recited by Applicant.

Applicant remarks that “Chew does not disclose an isolated integrator band reject filter coupled to a low-pass filter forward signal flow branch”. However, this statement is merely seen to be a contradiction of the above rejection. Applicant has provided no specific discussion of why the cited elements may or may not correspond to the claimed elements set forth in the above rejection. Therefore, this rejection is hereby maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chew in view of Applicant's prior art Fig. 1. The above circuit to Chew does not expressly disclose a structure

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for the “band-reject filter” 14 as having a “resistor for tuning”. However, Applicant’s prior art Fig. 1 (taken from the “Tunable RC Null Networks” cited by Applicant) discloses a notch filter that is easily adjustable and highly sensitive. Therefore, it would have been obvious for one skilled in the art to use the specific notch filter design in Applicant’s prior art Fig. 1 for notch filter 14 of Chew to obtain the expected results of easy adjustability and high sensitivity.

Examiner has considered Applicant’s remarks for the rejection to claim 1, however, it appears that Applicant has not taken into account the additional structure provided for by the added circuitry of Fig. 1 in the combination

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chew in view of Sallen et al. (cited by Applicant). In the above reference to Chew, there is no specific disclosure for low pass filter 14. The reference to Sallen et al. discloses a “low-pass filter” having sharp cut-off. Therefore, it would have been obvious to one skilled in the art to use the specific “low-pass filter” taught by Sallen et al. for the specific low pass filter 12 of Chew to obtain the expected results of obtaining sharp cut-off.

Examiner has considered Applicant remarks for the above rejection to claim 3 and has not found such to be persuasive. Applicant states that the combination “would merely obtain a notched filter connected to the output of a low pass Sallen Key filter”. This statement is not at all understood because this is what is being claimed. Applicant has not even set forth that any claimed element is lacking in the above combination. Therefore, the rejection is hereby maintained.

Claim 6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 703-308-4872. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for Technology Center 2800 are 703-872-9318 for Before Final communications and 703-872-9319 for After Final communications. Please note, any faxed paper clearly stating **DRAFT** or **PROPOSED AMENDMENT** at the top will be forwarded directly to the Examiner. All others will be treated as a formal response and acted upon accordingly.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0956.

TC
March 19, 2002


Terry D. Cunningham
Primary Examiner
Art Unit 2816